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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,732	03/10/2004	Ramiro Quintero Illera	68349-00008USPX	3413
61060	7590	08/09/2007	EXAMINER	
WINSTEAD PC			LE, HOANGANH T	
P.O. BOX 50784			ART UNIT	
DALLAS, TX 75201			PAPER NUMBER	
			2821	
			MAIL DATE	
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			08/09/2007	
			PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/797,732	Applicant(s) QUINTERO ILLERA ET AL.	
	Examiner HoangAnh T. Le	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 33-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 9, 10, 25-29 and 33-40 is/are rejected.
- 7) ☒ Claim(s) 4-8 and 11-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

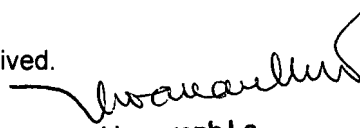
Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


HoangAnh Le
Primary Examiner

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/21/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The RCE filed on June 21,2007 is acknowledged.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-29 and 33-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, what is meant by "a multilevel structure"?

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3,9,10, 25-29,33-34, and 37-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Bae (the US Patent No. 6,359,589, of record).

The Bae reference teaches in figures 10-11 an antenna system comprising: an antenna element 62 and a ground plane comprising: at least two conducting surfaces 40,41, the two conducting surfaces being connected by at least a one conducting strip 42 which allows current to flow from one conducting surface to another, the strip being

narrower than the width of any of the two conducting surface (figure 11). The ground plane is disposed in a plane substantially parallel to a plane of the antenna element (figure 11). The ground plane comprises at least one of a space-filling-cure shape and a "multilevel structure" (figure 11). The conducting surfaces are on a common planar or curved surface (figure 11). Two edges of at least two conducting surfaces are placed substantially parallel to each other, and the at least one conducting strip connecting the two conducting surfaces is placed substantially centered with respect to the gap defined by the two substantially parallel edges (figure 11). The ground-plane comprising a plurality of conducting surfaces on the same planar or curved surface, wherein at least two of the conducting surfaces are connected by a conducting strip (figure 11) The antenna device includes a monopole antenna (figure 10). The antenna device is included in a cellular telephone, a cordless telephone, a personal digital assistant (PDA), a wireless paging device, an electronic game device or a remote control (figure 11). The ground-plane is included in a handheld wireless device and wherein the antenna device includes a microstrip patch antenna configuration or a planar inverted-F (PIFA) antenna configuration (figure 11). The opposing edges of adjacent conducting surfaces are linear in shape and disposed one from the other in parallel spaced relationship (figure 11).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bae (cited above) in view of Maruyama et al (the US Patent No. 6,400,330, of record)

The Bae reference teaches every feature of the claimed invention, excluding the antenna system being mounted inside a rear-view mirror of a vehicle.

The Maruyama et al reference teaches in figure 5 an antenna being mounted inside a rear-view mirror of a vehicle in order to improve the characteristics of the antenna.

Since one of ordinary skill in the art would recognize the benefit of improving the characteristics of the antenna, it would have been obvious to provide Bae with the antenna system being mounted inside a rear-view mirror of a vehicle as taught by Maruyama et al.

2. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bae (cited above) in view of Endo et al (the US Patent No. 6,271,798).

The Bae reference teaches every feature of the claimed invention, excluding the antenna system being mounted inside a keyless door lock operation device.

The Endo et al reference teaches in figure 1 an antenna being mounted inside a keyless door lock operation device in order to improve the characteristics of the antenna.

Since one of ordinary skill in the art would recognize the benefit of improving the characteristics of the antenna, it would have been obvious to provide Bae with the

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antenna system being mounted inside a keyless door lock operation device as taught by Endo et al.

Allowable Subject Matter

3. Claims 4-8, and 11 -24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments filed June 21, 2007 have been fully considered but they are not persuasive.

Applicant argues that Bae does not teach the ground plane having "a multilevel structure". Examiner respectfully disagrees. Bae does teach in figure 11 the ground plane 40 having "a multilevel structure".

Since Bae does show all claimed structure, the 102 rejection is proper.

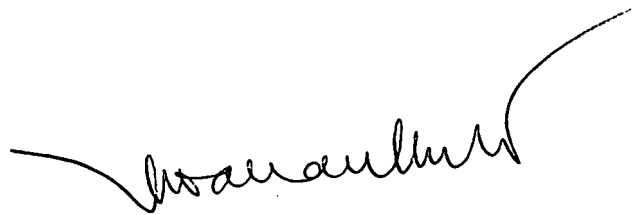
Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HoangAnh T. Le whose telephone number is (571) 272-1823. The examiner can normally be reached on 8:00am-4:30pm.

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The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'Hoanganh Le', with a long, sweeping horizontal line extending to the left and a curved line extending upwards and to the right.

Hoanganh Le
Primary Examiner